- ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2001 ACS L2
- 1999:617621 HCAPLUS AN
- Bioconjugation without linker or activator to polymer platforms with ΤI carboxyl and hydroxy moieties.
- Martey, Christine A.; Gelormo, David J.; Heindel, Ned D. ΑU ; Longton, Wallace A.
- Department of Chemistry, Lehigh University, Bethlehem, PA, 18015, USA CS
- Book of Abstracts, 218th ACS National Meeting, New Orleans, Aug. 22-26 SO (1999), MEDI-247 Publisher: American Chemical Society, Washington, D. C. CODEN: 67ZJA5
- Conference; Meeting Abstract DT
- English LА
- Many polymers contg. both hydroxyl and carboxyl residues on their backbone AΒ can be internally lactonized without thermal decompn. Such pendant lactones can be opened with nucleophilic pharmaceuticals to achieve degrees of substitution which approach the theor. maxima of one drug per original carboxyl. After model studies opening, with p-methoxybenzyl amine, the lactones of natural "polymers" of mono-carboxymethylated glucose - lactonized by flash-heating in xylene - we extended our studies to the attachment of such pharmaceuticals and biol.-important mols. as mitoxanthone, ellipticine, aminoglutethimide, finasteride, and tocopherol. Creating reactive lactones on the polymer avoids the necessity of using secondary activating adjuvants which leave unused residues on the macromol. Loading levels obtainable by this method with specific pharmaceuticals onto dextran, cellulose, and similar biopolymers and the release kinetics for sample pharmaceuticals will be presented.

- ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2001 ACS L4
- 1998:529836 HCAPLUS AN
- Polysaccharide lactones as activated carriers for transport and ΤI release of therapeutic agents.
- Martey, Christine A.; Heindel, Ned D. ΑU
- Department Chemistry, Lehigh University, Bethlehem, PA, 18015, USA CS
- Book of Abstracts, 216th ACS National Meeting, Boston, August 23-27 SO (1998), MEDI-351 Publisher: American Chemical Society, Washington, D. C. CODEN: 66KYA2
- Conference; Meeting Abstract DΤ
- LА English
- Carbohydrate polymers have long been known for their low immunogenicity in AΒ mammalian systems. As such they represent ideal scaffolds for drug transport and controlled release. We have found that at a degree of substitution near unity in carboxymethylated dextran and cellulose, it is possible to generate a reactive lactone by thermally-induced intramol. dehydration. These lactones capture amine- or hydrazine-contg. small mols. and release these substances upon hydrolysis and/or enzyme action. They thereby serve as useful macromol. carriers of drug candidates. We have prepd. the internal lactones of carboxymethyldextran and CM-cellulose and have employed IR carbonyl bands to track the lactonization process and subsequent drug-loading. Benzylamines and anilines have been used as test systems to demonstrate the feasibility of this direct-linking and a no. of pharmaceuticals have been similarly coupled. The half-lives for release indicate the potential of these macromols. for use as in vivo drug depots.
- ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2001 ACS T.4
- 1994:86219 HCAPLUS AN
- 120:86219 DN
- Carboxymethyl dextran lactone: A preactivated polymer for amine ΤI conjugations
- Heindel, Ned D.; Kauffman, Michael A.; Akyea, Eric K.; Engel, ΑU Stephanie A.; Frey, Michael F.; Lacey, C. Jeffrey; Egolf, Roger A.
- Inst. Health Sci., Lehigh Univ., Bethlehem, PA, 18015, USA CS
- Bioconjugate Chem. (1994), 5(1), 98-100 SO CODEN: BCCHES; ISSN: 1043-1802
- DT Journal
- English LΆ
- 63-5 (Pharmaceuticals)

Section cross-reference(s): 33

- The linking of amino haptens to carboxymethyl dextran (CMD) requires carboxyl activation, for example, via carbodiimides. The authors have discovered that substantial N-acylurea, derived from these carbodiimides, can be trapped on the CMD backbone. As an alternative, CMD can be conveniently lactonized by heating in inert solvents, and this carboxymethyl dextran lactone (CDL) can be employed directly for amine conjugation.
- carboxymethyl dextran lactone amine conjugate prepn; drug STtargeting carboxymethyl dextran lactone
- Amines, preparation IT
 - RL: SPN (Synthetic preparation); PREP (Preparation) (carboxamidoalkyl, dextrans-contg., prepn. of as drug carriers)
- Pharmaceutical dosage forms IT (carriers, carboxymethyl dextran lactone as preactivated polymer for amine conjugation in)

```
9044-05-7DP, Carboxymethyldextran, methoxybenzylamine derivs.
IT
    RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn. and amine conjugation of, as drug carrier)
     152287-12-2P
IT
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn. of)
     152287-12-2DP, methoxybenzylamine derivs.
IT
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn. of, as drug carrier)
     2393-23-9DP, 4-Methoxybenzylamine, reaction products with carboxymethyl
IT
     dextrans
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn. of, as drug carriers)
     ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2001 ACS
L4
     1982:19896 HCAPLUS
ΑN
     96:19896
DN
     Improved synthesis of 3-aralkylidene-5-arylthiophen-2-(3H)ones
ΤI
     Miller, Gerald A.; Heindel, Ned D.; Minatelli, John A.
ΑU
     Dep. Chem., Lehigh Univ., Bethlehem, PA, 18015, USA
CS
     J. Heterocycl. Chem. (1981), 18(6), 1253-4
SO
     CODEN: JHTCAD; ISSN: 0022-152X
     Journal
DT
     English
LA
     27-8 (Heterocyclic Compounds (One Hetero Atom))
CC
GΙ
```

3-Aralkylidene-5-arylthiophen-2(3H)-ones (I; R, R1'= aryl) were prepd. in AΒ 2 steps from 4-aryl-4-oxobutanoic acids via the intermediacy of butenolides II and thiophenones generated by the sequential action of Ac20, NaSH and R1CHO. lactonization aryloxobutanoic acid; arylbutenolide thiolation ST condensation benzaldehyde; aralkylidenearylthiophenone; thiophenone aryl aralkylidene IT Lactonization (of aryloxobutanoic acids, arylbutenolides from) Condensation reaction (thiolation and, of arylbutenolides with benzaldehyde derivs., arylkylidenethiophenones from) Substitution reaction ΙT (thiolation, of arylbutenolides, thiophenones from) 104-88-1, reactions 874-42-0 IT RL: RCT (Reactant) (condensation of, with arylthiophenone deriv.) 51036-98-7 2051-95-8 IT RL: RCT (Reactant) (lactonization of) 80241-36-7P 80224-53-9P IT

```
RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn. of)
                  80241-35-6P
ΙT
    1955-39-1P
    RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn., thiolation and condensation of, with arom. aldehydes)
    ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2001 ACS
L4
     1981:192037 HCAPLUS
AN
     94:192037
DN
     Synthesis and antibacterial and anticancer evaluations of
ΤI
     .alpha.-methylene-.gamma.-butyrolactones
     Heindel, Ned D.; Minatelli, John A.
ΑU
     Cent. Health Sci., Lehigh Univ., Bethlehem, PA, 18015, USA
CS
     J. Pharm. Sci. (1981), 70(1), 84-6
SO
     CODEN: JPMSAE; ISSN: 0022-3549
     Journal
DT
     English
LА
     27-10 (Heterocyclic Compounds (One Hetero Atom))
CC
     Section cross-reference(s): 1
GΙ
```

$$R^2$$
 R^2
 R^2

Butyrolactones I [R = Me, Ph, H; R1 = C6H4(CH2)3CO2Et-p, 2-thienyl, CH2Ph, p-(morpholinosulfonyl)phenyl, etc.] and II (R2 = H, I) were prepd. by AΒ Reformatskii condensation of BrCH2C(:CH2)CO2Et with RR1CO or the indolediones III. I [R = H, R1 = p-(morpholinosulfonyl)phenyl] and II (<math>R2) = I) (IV) had anti-P-388 lymphocytic leukemia activity whereas IV inhibited human carcinoma of the nasopharynx. I and II were also screened for their antibacterial and antifungal activities. butyrolactone anticancer; Reformatskii bromomethylacrylate ketone; STantibacterial butyrolactone; fungicide butyrolactone Bactericides, Disinfectants and Antiseptics ΙT Fungicides and Fungistats Neoplasm inhibitors (methylenebutyrolactones as, prepn. of) Reformatskii reaction IT (of (bromomethyl)acrylate with ketones) Lactones IT RL: SPN (Synthetic preparation); PREP (Preparation)

```
(.gamma.-, .alpha.-methylene, prepn. of, by Reformatskii reaction of
        (bromomethyl) acrylate with ketones, antibacterial and anticancer
        activities of)
                                                     71665-59-3
                           2058-74-4
                                       58722-33-1
                135-00-2
     122-78-1
IT
                  77547-11-6 77547-12-7
     77547-10-5
     RL: RCT (Reactant)
        (Reformatskii reaction of, with (bromomethyl)acrylate)
     17435-72-2
IT
     RL: RCT (Reactant)
        (Reformatskii reaction of, with ketones)
                                                              77547-05-8P
                                                77547-04-7P
                                 77547-03-6P
                   77547-02-5P
     71741-89-4P
IT
                                                77547-09-2P
                                 77547-08-1P
                   77547-07-0P
     77547-06-9P
     RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic
     preparation); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (prepn. and anticancer activity of)
     ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2001 ACS
L4
     1972:94616 HCAPLUS
AN
     76:94616
DN
     Synthesis, transformation, and general pharmacologic activity in
ΤI
     1,4-benzodiazepine-3,5-diones
     Heindel, Ned D.; Fives, William P.; Lemke, Thomas F.; Rowe, Jay
ΑU
     E.; Snady, Harry W.; Carrano, Richard A.
     Dep. Chem., Lehigh Univ., Bethlehem, Pa., USA
CS
     J. Med. Chem. (1971), 14(12), 1233-5
SO
     CODEN: JMCMAR
DT
     Journal
      English
LΑ
      1 (Pharmacodynamics)
CC
      Section cross-reference(s): 28
      7-Halo-, methyl-, or methoxy-substituted 1,4-benzodiazepine-3,5-diones (I)
AΒ
      showed only slight general pharmacol. activity when administered i.p. in
      doses .leq.1000 mg/kg, possibly due to poor absorption.
      7-Fluoro-2-methoxycarbonylmethylene-2H-1,4-benzodiazepine-3,5(1H,4H)-dione
      [34297-51-3] (R = F) showed significant cardiovascular activity when given
      i.v. to rats. The compds. had low toxicity, as did the intermediates
      di-Me (2-carboxamidoanilino) fumarates from which I were obtained by
      cyclization. Hydride redn. of I yielded the 3-hydroxy analogs which were
      lactonized by treatment with alc. alkoxide.
      benzodiazepinedione cardiovascular activity; diazepinedione benzo
 ST
      pharmacol
      Circulation
 TT
         (benzodiazepinediones effect on)
                                                           35514-31-9
                                              34297-51-3
                                17244-26-7
                   17244-25-6
      13214-23-8
 ΙT
                   35514-34-2
      35514-33-1
      RL: BAC (Biological activity or effector, except adverse); THU
      (Therapeutic use); BIOL (Biological study); USES (Uses)
         (pharmacol. of)
                                                               35514-23-9P
                                                 17244-27-8P
                    13187-67-2P
                                   13214-22-7P
      13187-66-1P
 IT
                                                               35573-75-2P
                                                 35514-28-4P
                    35514-25-1P
                                   35514-26-2P
      35514-24-0P
                    35721-11-0P
      35573-77-4P
      RL: SPN (Synthetic preparation); PREP (Preparation)
          (prepn. of)
```

(FILE 'HOME' ENTERED AT 14:43:22 ON 03 OCT 2001)

en . . . 2

```
FILE 'WPIX, HCAPLUS' ENTERED AT 14:43:34 ON 03 OCT 2001
            192 S (LONGTON W? OR MARTEY C? OR HEINDEL N?)/AU
L1
                                                                    Inventor Name
Search
L2
              1 S (LONGTON W? AND MARTEY C? AND HEINDEL N?)/AU
              6 S L1 AND LACTON?
L3
              5 S L3 NOT L2
L4
                SEL RN L3 1-6
     FILE 'REGISTRY' ENTERED AT 14:49:53 ON 03 OCT 2001
L5
             49 S E1-E49
     FILE 'STNGUIDE' ENTERED AT 14:52:34 ON 03 OCT 2001
    FILE 'HCAPLUS' ENTERED AT 14:54:35 ON 03 OCT 2001
           3182 S ?LACTON?(L)(?STARCH? OR ?CHITOSAN? OR ?DEXTRAN? OR ?CELLULOS?
L6
L7
             89 S L6 AND ?CARBOXYMETHYL?
             28 S L7 AND PREP/RL
^{\text{L8}}
            288 S (?LACTON? AND ?CARBOXYMETHYL?)/TI,AB
L9
            23 S (LACTON? AND CARBOXYMETHYL?)/TI
L10
            258 S (LACTON? AND CARBOXYMETHYL?)/AB
L11
            272 S L10 OR L11
L12
            288 S (LACTON? AND CARBOXYMETHYL?)/AB,TI
L13
             16 S L13 NOT L12
L14
L15
             11 S L12 AND L8
                SEL RN 1-11
    FILE 'REGISTRY' ENTERED AT 15:05:02 ON 03 OCT 2001
            222 S E50-E271
L16
              1 S DIGLYME/CN
L17
    FILE 'REGISTRY' ENTERED AT 15:05:55 ON 03 OCT 2001
     FILE 'HCAPLUS' ENTERED AT 15:06:03 ON 03 OCT 2001
             11 S L16 AND L15
L18
L19
              0 S L17 AND L12
              0 S L6 AND L17
L20
L21
             79 S L6 AND (XYLENE OR TOLUENE OR ACETONITRILE OR DIGLYME)
L22
             78 S L21 NOT L18
                E LACTONIZ/CT
                E E4+ALL
                E E9+ALL
                E LACTON/CT
                E LACTONIZ/CT
           1374 S E4-E10
L23
                E LACTONIS/CT
L24
              0 S L23 AND L22
              4 S L23 AND L13
L25
              3 S L25 NOT L18
L26
L27
          13858 S LACTON? (L) REACT?
                SET ABB ON PERM
          13858 S LACTON? (L) REACT?
L28
L29
             17 S L28 AND L22
L30
             61 S L22 NOT L29
```

FILE 'CASREACT' ENTERED AT 15:43:40 ON 03 OCT 2001

L31		QUE LACTONE/FG.FORM (L) ALCOHOLS/FG.RXN (L) CARBOXYLIC/FG.RXN
L32	1992	S L31
L33		STR
L34		STR L33
L35	2	S L34 SSS SUB=L32 SAM
L36	35	S L34 SSS SUB=L32 FULL
		SAVE L36 LACTONIZA/A
	FILE 'HCAP	LUS' ENTERED AT 15:59:37 ON 03 OCT 2001
L37	15	S POLYSACCHARID? (L) LACTONIZ?

Ç

U

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=> d que 136
           1992 SEA FILE=CASREACT ABB=ON PLU=ON LACTONE/FG.FORM (L) ALCOHOLS/
L32
                 FG.RXN (L) CARBOXYLIC/FG.RXN
L34
                 STR
 PRO
                 RRT
                            10
                     2
                                              Search was performed in CASREACT but the results werenot relevant.
REP G1=(2-3) C
NODE ATTRIBUTES:
CONNECT IS E1 RC AT
CONNECT IS E1 RC AT
                        5
CONNECT IS E1 RC AT
                       10
CONNECT IS E1 RC AT
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 11
STEREO ATTRIBUTES: NONE
             35 SEA FILE=CASREACT SUB=L32 SSS FUL L34 (
                                                             77 REACTIONS)
L36
```

- L37 ANSWER 1 OF 15 HCAPLUS COPYRIGHT 2001 ACS
- AN 1994:701181 HCAPLUS
- DN 121:301181
- TI Novel Polysaccharide Surfactants: Synthesis of Model Compounds and Dextran-Based Surfactants
- AU Zhang, Tianhong; Marchant, Roger E.
- CS Department of Macromolecular Science, Case Western Reserve University, Cleveland, OH, 44106, USA
- SO Macromolecules (1994), 27(25), 7302-8 CODEN: MAMOBX; ISSN: 0024-9297
- DT Journal
- LA English
- Two novel dextran surfactants, N-n-hexyldextran aldonamide (diblock AB AΒ type) and N,N'-hexamethylenebis(dextran aldonamide) (triblock ABA type), which were composed of hydrophilic dextran oligosaccharide (Mw = 1600) and hydrophobic hexamethylene, were synthesized and characterized by GPC, FTIR, and 1H NMR. The dextran surfactants were prepd. by the selective oxidn. and lactonization of the reducing end groups of dextran oligosaccharide, followed by the aminolysis with hexylamine or 1,6-hexanediamine. The intermediate lactones reacted selectively with amines to form the amide linkages, obviating the need for protecting the hydroxyl groups in the dextran. To optimize the reaction conditions and purifn. methods, model compds. were synthesized from D-maltose monohydrate. An ion-exchange chromatog. method was developed to purify the dextran surfactants, based on the fact that the dextran surfactants are nonionic while the impurities are ionic. In addn. to linear diblock and triblock polysaccharide surfactants with different block chain lengths, the synthetic approach described in this report also provides a practicable route for the prepn. of synthetic approach described in this report also provides a practicable route for the prepn. of starlike and comblike polysaccharide surfactants.

L37 ANSWER 10 OF 15 HCAPLUS COPYRIGHT 2001 ACS

AN 1965:463445 HCAPLUS

DN 63:63445

OREF 63:11681d-g

TI .alpha.-D(1 .fwdarw. 4)-Polysaccharides of D-glucuronic acid and
D-glucose. VIII. Lactonization of the .alpha.-D-(1 .fwdarw.
4)-linked disaccharides containing D-glucuronic acid residues

AU Hirasaka, Yoshinobu; Matsunaga, Isao

CS Chugai Pharm. Co., Tokyo

SO Chem. Pharm. Bull. (Tokyo) (1965), 13(6), 672-6

DT Journal

LA English

cf. CA 62, 14779a. When aq. solns. of I, II, and III were stirred at room ΑB temp. with a cation exchange resin, IV and V were formed. IV and V were converted to II and III by neutralization. IV and V had higher Rf values than II and III and were sepd. from them by chromatography on cellulose columns (eluted with EtOAcAcOH-water 3:1:1, 5 g. cellulose used per 500 mg. sugar). II-acetate (VI) and III-acetate (VII) were treated in CHCl3 with SnCl4 (Fry, CA 50, 4792e) to give the lactones VIII (50% yield, m. 80-5.degree. [.alpha.]25D 48.3 (c = 5.46, CHCl3) .nu.max. 1814, 1750 cm.-1) and IX (purified by chromatography on silica with tolucneacetone-alc. 3:1:1) which were identical with IV-acetate and V-acetate, resp. IV and V were treated with Me iodide and Ag20 to give methyl derivs. which were hydrolyzed with acid to give 2,3-di-O-methyl-D-glucuronic acid (X) and 2,3,4,6-tetra-O-methyl-D-glucose from IV and X and 2,3,4-tetra-O-methyl-D-glucuronic acid from V, confirming the position of the lactone ring.

ANSWER 1 OF 11 HCAPLUS COPYRIGHT 2001 ACS

L18

```
1999:761856 HCAPLUS
AN
DN
     132:124411
     Synthesis of substituted hydrazides of carboxymethyl dextran
ΤI
     Il'ina, T. Yu.; Ponomarenko, M. N.; Iozep, A. A.
ΑU
CS
     S.-Peterb. Gos. Khim.-Farm. Akad., St. Petersburg, Russia
     Zh. Prikl. Khim. (S.-Peterburg) (1999), 72(6), 985-990
     CODEN: ZPKHAB; ISSN: 0044-4618
PB
     Nauka
DT
     Journal
LΑ
     Russian
AΒ
     Activity of carboxymethyl dextran its Et ester,
     lactone, and azide is studied in its reactions with alkyl-, aryl-,
     and acylhydrazines.
IT
     60-34-4, Methylhydrazine 119-26-6, 2,4-
     Dinitrophenylhydrazine 3538-68-9, 3-Phenylpropanoylhydrazine
     RL: RCT (Reactant)
        (carboxymethyl dextran Et ester acylation of)
RN
     60-34-4 HCAPLUS
     Hydrazine, methyl- (6CI, 8CI, 9CI) (CA INDEX NAME)
CN
H_3C-NH-NH_2
     119-26-6 HCAPLUS
RN
     Hydrazine, (2,4-dinitrophenyl)- (6CI, 8CI, 9CI) (CA INDEX NAME)
CN
       NO2
            NH-NH<sub>2</sub>
02N
RN
     3538-68-9 HCAPLUS
CN
     Benzenepropanoic acid, hydrazide (9CI) (CA INDEX NAME)
H2N-NH-C-CH2-CH2-Ph
IT
     100-46-9, Benzylamine, reactions
     RL: RCT (Reactant)
        (reactivity of carboxymethyl dextran Et ester in reaction
        with)
     100-46-9 HCAPLUS
RN
     Benzenemethanamine (9CI) (CA INDEX NAME)
CN
H_2N-CH_2-Ph
```

54-85-3, Isonicotinoylhydrazine 62-53-3, Benzenamine, reactions 100-63-0, Phenylhydrazine 103-67-3 456-06-4, p-FluoroBenzoylhydrazide 553-53-7, Nicotinoylhydrazine 613-94-5, Benzoylhydrazine 636-97-5 , p-NitroBenzoylhydrazide 936-02-7, Salicylhydrazide 1452-63-7, Picolinoylhydrazine 3290-99-1, Anisic acid hydrazide 3619-22-5, 4-Methylbenzoylhydrazine 5818-06-4 , m-Hydroxybenzoylhydrazide 9044-05-7, Carboxymethyl dextran 26409-12-1 39115-96-3, 3-Bromobenzoylhydrazine 53125-24-9, Carboxymethyldextran azide 154452-55-8, Carboxymethyl dextran ethyl ester 256374-92-2 RL: RCT (Reactant) (synthesis of substituted hydrazides of carboxymethyl dextran) 54-85-3 HCAPLUS RN 4-Pyridinecarboxylic acid, hydrazide (9CI) (CA INDEX NAME) CN

RN 62-53-3 HCAPLUS CN Benzenamine (9CI) (CA INDEX NAME)

RN 100-63-0 HCAPLUS CN Hydrazine, phenyl- (8CI, 9CI) (CA INDEX NAME)

H₂N-NH-Ph

RN 103-67-3 HCAPLUS CN Benzenemethanamine, N-methyl- (9CI) (CA INDEX NAME)

MeNH-CH2-Ph

RN 456-06-4 HCAPLUS CN Benzoic acid, 4-fluoro-, hydrazide (9CI) (CA INDEX NAME)

RN 553-53-7 HCAPLUS

CN 3-Pyridinecarboxylic acid, hydrazide (9CI) (CA INDEX NAME)

$$\begin{array}{c} O \\ H_2N-NH-C \\ \hline \end{array}$$

RN 613-94-5 HCAPLUS

CN Benzoic acid, hydrazide (6CI, 8CI, 9CI) (CA INDEX NAME)

RN 636-97-5 HCAPLUS

CN Benzoic acid, 4-nitro-, hydrazide (9CI) (CA INDEX NAME)

RN 936-02-7 HCAPLUS

CN Benzoic acid, 2-hydroxy-, hydrazide (9CI) (CA INDEX NAME)

RN 1452-63-7 HCAPLUS

CN 2-Pyridinecarboxylic acid, hydrazide (9CI) (CA INDEX NAME)

RN 3290-99-1 HCAPLUS

CN Benzoic acid, 4-methoxy-, hydrazide (9CI) (CA INDEX NAME)

RN 3619-22-5 HCAPLUS

CN Benzoic acid, 4-methyl-, hydrazide (9CI) (CA INDEX NAME)

RN 5818-06-4 HCAPLUS

CN Benzoic acid, 3-hydroxy-, hydrazide (9CI) (CA INDEX NAME)

RN 9044-05-7 HCAPLUS

CN Dextran, carboxymethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-54-0

CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1 CMF C2 H4 O3

RN 26409-12-1 HCAPLUS

CN 4-Pyrimidinecarboxylic acid, 1,2,3,6-tetrahydro-2,6-dioxo-, hydrazide (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
 & O \\
 & H \\
 & C - NH - NH_2
\end{array}$$

RN 39115-96-3 HCAPLUS

CN Benzoic acid, 3-bromo-, hydrazide (9CI) (CA INDEX NAME)

RN 53125-24-9 HCAPLUS

CN Dextran, 2-azido-2-oxoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 167613-56-1

CMF C2 H3 N3 O2

CM 2

CRN 9004-54-0

CMF Unspecified

CCI PMS, MAN

```
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
    154452-55-8 HCAPLUS
RN
    Dextran, 2-ethoxy-2-oxoethyl ether (9CI) (CA INDEX NAME)
CN
    CM
    CRN
         9004-54-0
    CMF
         Unspecified
    CCI PMS, MAN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
         2
    CM
    CRN 623-50-7
    CMF C4 H8 O3
    0
Eto-C-CH2-OH
    256374-92-2 HCAPLUS
RN
    Dextran, 2-ethoxy-2-oxoethyl 2-oxo-2-(2-phenylhydrazino)ethyl ether (9CI)
CN
     (CA INDEX NAME)
    CM
         1
         73514-26-8
    CMF C8 H10 N2 O2
         0
PhNH-NH-C-CH2-OH .
    CM
         2
         9004-54-0
         Unspecified
    CMF
    CCI PMS, MAN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
         3
    CM
    CRN 623-50-7
    CMF C4 H8 O3
    0
```

Eto-C-CH2-OH

```
ΙT
    256374-77-3P 256374-79-5P 256374-81-9P
    256374-83-1P 256374-85-3P 256374-87-5P
    256374-89-7P 256374-91-1P 256374-94-4P
    256374-96-6P 256374-98-8P 256375-00-5P
    256375-02-7P 256375-03-8P 256375-04-9P
    256375-06-1P 256375-07-2P 256375-08-3P
    256375-09-4P 256375-10-7P
    RL: SPN (Synthetic preparation); PREP (Preparation)
        (synthesis of substituted hydrazides of carboxymethyl
       dextran)
RN
    256374-77-3 HCAPLUS
    Dextran, carboxymethyl 2-oxo-2-(2-phenylhydrazino)ethyl ether, sodium salt
CN
     (9CI) (CA INDEX NAME)
    CM
         1
     CRN 73514-26-8
     CMF C8 H10 N2 O2
         0
PhNH-NH-C-CH2-OH
         2
     CM
    CRN 9004-54-0
        Unspecified
     CMF
    CCI PMS, MAN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
    CM
         3
    CRN 79-14-1
    CMF C2 H4 O3
HO-C-CH2-OH
RN
    256374-79-5 HCAPLUS
    Dextran, 2-(2-benzoylhydrazino)-2-oxoethyl carboxymethyl ether, sodium
CN
    salt (9CI) (CA INDEX NAME)
         1
    CM
     CRN 256374-78-4
     CMF C9 H10 N2 O3
```

CM 2.

CRN 9004-54-0 . CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 79-14-1 CMF C2 H4 O3

RN 256374-81-9 HCAPLUS

CN Dextran, 2-[2-(3-bromobenzoyl)hydrazino]-2-oxoethyl carboxymethyl ether, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 256374-80-8 CMF C9 H9 Br N2 O3

CM 2

CRN 9004-54-0 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 79-14-1 CMF C2 H4 O3

RN 256374-83-1 HCAPLUS

CN Dextran, carboxymethyl 2-[2-(4-methylbenzoyl)hydrazino]-2-oxoethyl ether, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 256374-82-0 CMF C10 H12 N2 O3

CM 2

CRN 9004-54-0 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 79-14-1 CMF C2 H4 O3

RN 256374-85-3 HCAPLUS

CN Dextran, carboxymethyl 2-oxo-2-[2-(2-pyridinylcarbonyl)hydrazino]ethyl ether, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 256374-84-2 CMF C8 H9 N3 O3

CRN 9004-54-0 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 79-14-1 CMF C2 H4 O3

RN 256374-87-5 HCAPLUS

CN Dextran, carboxymethyl 2-oxo-2-[2-(3-pyridinylcarbonyl)hydrazino]ethyl ether, sodium salt (9CI) (CA INDEX NAME)

CM I

CRN 256374-86-4 CMF C8 H9 N3 O3

CM 2

CRN 9004-54-0 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 79-14-1 CMF C2 H4 O3

RN 256374-89-7 HCAPLUS

CN Dextran, carboxymethyl 2-oxo-2-[2-(4-pyridinylcarbonyl)hydrazino]ethyl ether, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 256374-88-6 CMF C8 H9 N3 O3

CM 2

CRN 9004-54-0 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 79-14-1 CMF C2 H4 O3

RN 256374-91-1 HCAPLUS

CN Dextran, carboxymethyl 2-oxo-2-[2-[(1,2,3,6-tetrahydro-2,6-dioxo-4-pyrimidinyl)carbonyl]hydrazino]ethyl ether, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 256374-90-0 CMF C7 H8 N4 O5

CRN 9004-54-0 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 79-14-1 CMF C2 H4 O3

RN 256374-94-4 HCAPLUS
CN Dextran, 2-ethoxy-2-oxoethyl 2-oxo-2-[2-(phenylmethyl)hydrazino]ethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 256374-93-3 CMF C9 H12 N2 O2

$$\begin{array}{c} & \text{O} \\ || \\ \text{Ph-CH}_2 - \text{NH-NH-C-CH}_2 - \text{OH} \end{array}$$

CM 2

CRN 9004-54-0 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 623-50-7 CMF C4 H8 O3

RN 256374-96-6 HCAPLUS

CN Dextran, 2-ethoxy-2-oxoethyl 2-[2-methyl-2-(phenylmethyl)hydrazino]-2-oxoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 256374-95-5 CMF C10 H14 N2 O2

$$\begin{array}{c|c} & \text{Me} & \text{O} \\ & | & || \\ \text{Ph-} & \text{CH}_2 - \text{N-} & \text{NH-} & \text{C-} & \text{CH}_2 - \text{OH} \end{array}$$

CM 2

CRN 9004-54-0 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 623-50-7 CMF C4 H8 O3

$$_{\parallel}^{\circ}$$
 Eto-C-CH₂-OH

RN 256374-98-8 HCAPLUS

CN Dextran, 2-ethoxy-2-oxoethyl 2-(2-methylhydrazino)-2-oxoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 256374-97-7 CMF C3 H8 N2 O2

$$\begin{array}{c} \text{O} \\ || \\ \text{MeNH-NH-C-CH}_2\text{-OH} \end{array}$$

CRN 9004-54-0 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 623-50-7 CMF C4 H8 O3

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{EtO-C-CH}_2\text{-OH} \end{array}$$

RN 256375-00-5 HCAPLUS

CN Dextran, 2-[2-(2,4-dinitrophenyl)hydrazino]-2-oxoethyl 2-ethoxy-2-oxoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 256374-99-9 CMF C8 H8 N4 O6

CM 2

CRN 9004-54-0 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 623-50-7 CMF C4 H8 O3

RN 256375-02-7 HCAPLUS

CN Dextran, 2-ethoxy-2-oxoethyl 2-oxo-2-[2-(1-oxo-3-phenylpropyl)hydrazino]ethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 256375-01-6 CMF C11 H14 N2 O3

CM 2

CRN 9004-54-0 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 623-50-7 CMF C4 H8 O3

$$\mathop{\parallel}_{\rm Eto-\,C-\,CH_2-\,OH}^{\rm O}$$

RN 256375-03-8 HCAPLUS

CN Dextran, 2-(2-benzoylhydrazino)-2-oxoethyl 2-ethoxy-2-oxoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 256374-78-4 CMF C9 H10 N2 O3

CRN 9004-54-0 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 623-50-7 CMF C4 H8 O3

RN 256375-04-9 HCAPLUS

CN Dextran, 2-[2-(3-bromobenzoyl)hydrazino]-2-oxoethyl 2-ethoxy-2-oxoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 256374-80-8 CMF C9 H9 Br N2 O3

CM 2

CRN 9004-54-0 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 623-50-7 CMF C4 H8 O3

RN 256375-06-1 HCAPLUS

CN Dextran, 2-ethoxy-2-oxoethyl 2-[2-(4-methoxybenzoyl)hydrazino]-2-oxoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 256375-05-0 CMF C10 H12 N2 O4

CM 2

CRN 9004-54-0 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 623-50-7 CMF C4 H8 03

RN 256375-07-2 HCAPLUS

CN Dextran, 2-ethoxy-2-oxoethyl 2-oxo-2-[2-(2-pyridinylcarbonyl)hydrazino]eth yl ether (9CI) (CA INDEX NAME)

CM :

CRN 256374-84-2 CMF C8 H9 N3 O3

CRN 9004-54-0 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 623-50-7 CMF C4 H8 O3

RN 256375-08-3 HCAPLUS

CN Dextran, 2-ethoxy-2-oxoethyl 2-oxo-2-[2-(3-pyridinylcarbonyl)hydrazino]eth yl ether (9CI) (CA INDEX NAME)

CM 1

CRN 256374-86-4 CMF C8 H9 N3 O3

$$\begin{array}{c|c} O & O \\ || & || \\ HO-CH_2-C-NH-NH-C \\ \hline \end{array}$$

CM 2

CRN 9004-54-0 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 623-50-7 CMF C4 H8 O3

RN 256375-09-4 HCAPLUS

CN Dextran, 2-ethoxy-2-oxoethyl 2-oxo-2-[2-(4-pyridinylcarbonyl)hydrazino]eth yl ether (9CI) (CA INDEX NAME)

CM 1

CRN 256374-88-6 CMF C8 H9 N3 O3

CM 2

CRN 9004-54-0

CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 623-50-7 CMF C4 H8 O3

RN 256375-10-7 HCAPLUS

CN Dextran, 2-ethoxy-2-oxoethyl 2-oxo-2-[2-[(1,2,3,6-tetrahydro-2,6-dioxo-4-pyrimidinyl)carbonyl]hydrazino]ethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 256374-90-0 CMF C7 H8 N4 O5

CRN 9004-54-0 Unspecified CMF CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM

CRN 623-50-7 CMF C4 H8 O3

0 Eto-C-CH2-OH

L18 ANSWER 2 OF 11 HCAPLUS COPYRIGHT 2001 ACS

1999:622788 HCAPLUS

DN 131:356030

Functionalized and degradable polymers of malic acid stimulate bone repair ΤI

Jeanbat-Mimaud, Viviane; Barbaud, Christel; Caruelle, Jean-Pierre; Barritault, Denis; Cammas-Marion, Sandrine; Langlois, Valerie; Guerin, Philippe

CS Laboratoire de recherche sur la croissance cellulaire, la reparation et la regeneration tissulaire, Laboratoire de recherche sur la croissance cellulaire, la reparation et la regeneration tissulaire, UPRESA 7053 CNRS-universite Paris-XII, Creteil, 94010, Fr.

C. R. Acad. Sci., Ser. IIc: Chim. (1999), 2(7-8), 393-401 SO CODEN: CASCFN; ISSN: 1387-1609

PB Editions Scientifiques et Medicales Elsevier

DTJournal

LΑ English

A water sol. and hydrolyzable polyester derived from malic acid has been synthesized by copolymn. of three different malolactonic acid esters. Functional pendant groups have been selected to interact with and protect heparin binding growth factors (HBGF). Three .beta.-substituted .beta.-lactones have been synthesized by using aspartic acid as a chiral precursor and benzyl, allyl and Bu alcs. in the formation of the ester pendant groups. The terpolymer has been subjected to three consecutive different chem. modifications. This modified terpolymer, able to induce new bone formation in an in vivo model, has the same property as carboxymethyl benzylamide sulfonate dextrans (CMDBS). Consequently, the distribution of the lateral functional groups is more

essential than the glucidic nature of the backbone to acquire biol. efficiency.

250375-83-8DP, epoxidized and sulfated TT

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(functionalized and degradable polymers of malic acid stimulate bone repair)

250375-83-8 HCAPLUS RN

CN 2-Oxetanecarboxylic acid, 4-oxo-, 1-methylpropyl ester, polymer with phenylmethyl 4-oxo-2-oxetanecarboxylate and 2-propenyl 4-oxo-2-oxetanecarboxylate (9CI) (CA INDEX NAME)

CM 1

CRN 250375-82-7 CMF C8 H12 O4

CM 2

CRN 182230-28-0 CMF C7 H8 O4

CM 3

CRN 76652-44-3 CMF C11 H10 O4

IT 56-84-8, Aspartic acid, reactions 923-06-8, Butanedioic
 acid, bromo-

RL: RCT (Reactant)

(functionalized and degradable polymers of malic acid stimulate bone repair)

RN 56-84-8 HCAPLUS

CN L-Aspartic acid (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 923-06-8 HCAPLUS

CN Butanedioic acid, bromo- (9CI) (CA INDEX NAME)

$$^{\mathrm{Br}}$$
 $^{\mathrm{Ho}_{2}\mathrm{C-CH-CH}_{2}\mathrm{-Co}_{2}\mathrm{H}}$

IT 5470-44-0P, Bromosuccinic anhydride 76652-44-3P, Benzyl
malolactonate 88850-36-6P 182230-28-0P,
2-Oxetanecarboxylic acid, 4-oxo-, 2-propenyl ester 197014-62-3P
250375-82-7P 250375-83-8P 250375-87-2P
250375-90-7P 250375-98-5P 250376-01-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation)
 (functionalized and degradable polymers of malic acid stimulate bone repair)
RN 5470-44-0 HCAPLUS
CN 2,5-Furandione, 3-bromodihydro- (9CI) (CA INDEX NAME)

RN 76652-44-3 HCAPLUS
CN 2-Oxetanecarboxylic acid, 4-oxo-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 88850-36-6 HCAPLUS

CN Butanedioic acid, bromo-, 4-(phenylmethyl) ester (9CI) (CA INDEX NAME)

RN 182230-28-0 HCAPLUS

CN 2-Oxetanecarboxylic acid, 4-oxo-, 2-propenyl ester (9CI) (CA INDEX NAME)

RN 197014-62-3 HCAPLUS

CN Butanedioic acid, bromo-, 1-(phenylmethyl) ester (9CI) (CA INDEX NAME)

RN 250375-82-7 HCAPLUS

CN 2-Oxetanecarboxylic acid, 4-oxo-, 1-methylpropyl ester (9CI) (CA INDEX NAME)

RN 250375-83-8 HCAPLUS

CN 2-Oxetanecarboxylic acid, 4-oxo-, 1-methylpropyl ester, polymer with phenylmethyl 4-oxo-2-oxetanecarboxylate and 2-propenyl 4-oxo-2-oxetanecarboxylate (9CI) (CA INDEX NAME)

CM 1

CRN 250375-82-7 CMF C8 H12 O4

CRN 182230-28-0 CMF C7 H8 O4

CM 3

CRN 76652-44-3 CMF C11 H10 O4

RN 250375-87-2 HCAPLUS

CN Butanedioic acid, bromo-, 1-(2-propenyl) ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{O Br} \\ || & | \\ \text{H}_2\text{C} = \text{CH-CH}_2\text{-O-C-CH-CH}_2\text{-CO}_2\text{H} \end{array}$$

RN 250375-90-7 HCAPLUS

CN Butanedioic acid, bromo-, 1-(1-methylpropyl) ester (9CI) (CA INDEX NAME)

```
O Br
   Me
Et-CH-O-C-CH-CH2-CO2H
    250375-98-5 HCAPLUS
CN
    Butanedioic acid, bromo-, 4-(2-propenyl) ester (9CI) (CA INDEX NAME)
     Br
HO2C-CH-CH2-C-O-CH2-CH=-CH2
RN:
    250376-01-3 HCAPLUS
    Butanedioic acid, bromo-, 4-(1-methylpropyl) ester (9CI) (CA INDEX NAME)
CN
             0
             Ī
                 HO2C-CH-CH2-C-O-CH-Et
RE.CNT 26
RF.
(1) Blanquaert, F; Bone 1995, V17(6), P499 HCAPLUS
(3) Boutault, K; Macromolecules 1995, V28, P3516 HCAPLUS
(4) Braud, C; ACS Polymers Preprints 1988, V29(1), P600 HCAPLUS
(5) Cammas, S; Biodegradable Plastics and Polymers 1994, P534 HCAPLUS
(6) Cammas, S; Polym Bull 1994, V33, P149 HCAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT
L18 ANSWER 3 OF 11 HCAPLUS COPYRIGHT 2001 ACS
    1995:177613 HCAPLUS
AN
DN
    122:187929
    Synthesis of substituted carboxymethyldextran amides
TI
    Iozep, A. A.; Il'ina, T. Yu.; Passet, B. V.
ΑU
     St. Peterburg. Khim.-Farm. Inst., St. Petersburg, Russia
CS
     Zh. Prikl. Khim. (S.-Peterburg) (1994), 67(3), 470-4
SO
    CODEN: ZPKHAB; ISSN: 0044-4618
DT
     Journal
     Russian
LA
     Reaction of benzylamine with carboxymethyldextran esters and
     lactones leads to carboxymethyldextran amides. The
     conversion of the ester groups to amide groups can reach 100%.
     9004-54-0DP, Dextran, carboxymethylated, amides, sodium
IT
     salts
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn. of)
     9004-54-0 HCAPLUS
RN
     Dextran (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
    100-46-9D, Benzylamine, reaction products with
IT
     carboxymethyldextran esters and lactones
```

9004-54-0D, Dextran, carboxymethylated, alkyl esters

RL: RCT (Reactant)

(prepn. of carboxymethyldextran amides)

```
100-46-9 HCAPLUS
RN
CN
     Benzenemethanamine (9CI) (CA INDEX NAME)
H_2N-CH_2-Ph
RN
     9004-54-0 HCAPLUS
CN
     Dextran (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
L18 ANSWER 4 OF 11 HCAPLUS COPYRIGHT 2001 ACS
AN
     1995:177612 HCAPLUS
     122:161109
DN
ΤI
     Carboxymethyldextran lactones
     Iozep, A. A.; Il'ina, T. Yu.; Passet, B. V.
ΑU
     St. Peterburg. Khim.-Farm. Inst., St. Petersburg, Russia
CS
     Zh. Prikl. Khim. (S.-Peterburg) (1994), 67(3), 467-9
SO
     CODEN: ZPKHAB; ISSN: 0044-4618
DT
     Journal
     Russian
LА
     Carboxymethyldextran can be lactonized by heating the
AB
     dry powder or in an inert org. solvent under milder conditions. The
     degree of lactonization depends on the degree of
     carboxymethylation, the org. solvent, the temp., and the reaction
     time and amts. to 6-33%...
IT
     9004-54-0DP, Dextran, carboxymethylated,
     lactones
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn. of)
     9004-54-0 HCAPLUS
RN
     Dextran (9CI) (CA INDEX NAME)
CN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
L18 ANSWER 5 OF 11 HCAPLUS COPYRIGHT 2001 ACS
AN
     1994:86219 HCAPLUS
DN
     120:86219
     Carboxymethyl dextran lactone: A
     preactivated polymer for amine conjugations
     Heindel, Ned D.; Kauffman, Michael A.; Akyea, Eric K.; Engel, Stephanie
ΑU
     A.; Frey, Michael F.; Lacey, C. Jeffrey; Egolf, Roger A.
     Inst. Health Sci., Lehigh Univ., Bethlehem, PA, 18015, USA
CS
     Bioconjugate Chem. (1994), 5(1), 98-100
SO
     CODEN: BCCHES; ISSN: 1043-1802
DT
     Journal
LΑ
     English
     The linking of amino haptens to carboxymethyl dextran
AΒ
     (CMD) requires carboxyl activation, for example, via carbodiimides. The
     authors have discovered that substantial N-acylurea, derived from these
     carbodiimides, can be trapped on the CMD backbone. As an alternative, CMD
     can be conveniently lactonized by heating in inert solvents, and
     this carboxymethyl dextran lactone (CDL) can
     be employed directly for amine conjugation.
     9044-05-7DP, Carboxymethyldextran, methoxybenzylamine
ΙT
```

```
derivs.
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn. and amine conjugation of, as drug carrier)
     9044-05-7 HCAPLUS
RN
    Dextran, carboxymethyl ether (9CI) (CA INDEX NAME)
CN
     CM
     CRN
         9004-54-0
     CMF
         Unspecified
     CCI PMS, MAN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
          2
    CM
     CRN
         79-14-1
     CMF C2 H4 O3
   0
но-с-сн2-он
ΙT
     152287-12-2P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn. of)
     152287-12-2 HCAPLUS
RN
     Dextran, 2-(carboxymethyl) ether, .delta.-lactone (9CI) (CA INDEX NAME)
CN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
    152287-12-2DP, methoxybenzylamine derivs.
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn. of, as drug carrier)
     152287-12-2 HCAPLUS
RN
     Dextran, 2-(carboxymethyl) ether, .delta.-lactone (9CI) (CA INDEX NAME)
CN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
     2393-23-9DP, 4-Methoxybenzylamine, reaction products with
     carboxymethyl dextrans
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn. of, as drug carriers)
     2393-23-9 HCAPLUS
RN
     Benzenemethanamine, 4-methoxy- (9CI) (CA INDEX NAME)
CN
            CH_2-NH_2
MeO
```

L18 ANSWER 6 OF 11 HCAPLUS COPYRIGHT 2001 ACS AN 1988:167456 HCAPLUS

DN 108:167456

October 3, 2001

```
Preparation, testing, and formulation of 7-(4-isoxazolyl)- and
ΤI
    7-(4-isothiazolyl)-6-hexenoates and related lactones as anticholesteremics
    Maier, Roland; Woitun, Eberhard; Mueller, Peter; Bomhard, Andreas; Eisele,
IN
    Bernhard; Grube, Helmut
    Thomae, Dr. Karl, G.m.b.H., Fed. Rep. Ger.
PA
    Ger. Offen., 17 pp.
SO
    CODEN: GWXXBX
DT
    Patent
    German
LΑ
FAN.CNT 1
                                        APPLICATION NO. DATE
     PATENT NO.
                     KIND DATE
                                          -----
                     ____
     _____
    DE 3621372 A1 19880107
                                         DE 1986-3621372 19860626
PΤ
    MARPAT 108:167456
OS
    The title compds. [I; A = CH(OH)CH2CH(OH)CH2CO2R3, hydroxypyranone moiety
AB
    Q; R1 = C1-5 alkyl, (un) substituted Ph; R2 = C1-4 alkyl, alkenyl,
     heptadecyl, cyclohexyl, naphthyl, thienyl, furyl, (un) substituted Ph; R3 =
    H, physiol. acceptable cation, hydrolyzable alkyl, phenylalkyl; X = O, S]
     and their racemates and stereoisomers were prepd. as inhibitors of
    hydroxymethylgutaryl-CoA reductase (HMG-CoA reductase), useful for
     treatment of hyperlipemia and atherosclerosis. Na (E)-7-[5-(2,4-
     dimethoxyphenyl)-3-methyl-4-isoxazolyl]-3,5-dihydroxy-6-heptenoate (II)
     was prepd. in several steps from 5-(2,4-dimethoxyphenyl)-3-methylisoxazole
     via the protected intermediate I [A = CH(OR4)CH2CH(OR4) CH2CO2Me, R1 = Me,
     R2 = 2.4 - (MeO) 2C6H3, R4 = Me3CSiPh2] which was deprotected and
     lactonized by treatment with Bu4N+F- to give I [A = Q, R1 = Me, R2]
     = 2,4-(MeO)2C6H3]. The latter was cleaved with aq. NaOH to give II.
     rat liver prepns. II gave >90% inhibition of HMG-Co A reductase at 10-5 M.
     Tablets were prepd. each contg. II 150.0, lactose 224.5,
     cornstarch 100.0, microcryst. cellulose 80.0, Na
     carboxymethylcellulose 4.0, and Mg stearate 1.5 mg.
IT
     37250-24-1, Hydroxymethylglutaryl-coenzyme A reductase
     RL: USES (Uses)
        (inhibitors, isoxazolylheptenoates)
     37250-24-1 HCAPLUS
RN
     Reductase, hydroxymethylglutaryl coenzyme A (9CI) (CA INDEX NAME)
CN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
     28241-32-9P 52605-61-5P 113826-87-2P
     113841-32-0P 113841-33-1P 113841-34-2P
     113841-35-3P 113841-36-4P 113841-37-5P
     113841-38-6P 113841-39-7P 113841-40-0P
     113841-41-1P 113841-42-2P 113841-43-3P
     113841-44-4P 113841-45-5P 113841-46-6P
     113841-47-7P 113841-48-8P 113841-49-9P
     113841-50-2P 113841-51-3P 113841-52-4P
     113841-53-5P 113841-59-1P 113841-60-4P
     113841-61-5P 113841-62-6P 113841-63-7P
     113841-64-8P 113841-65-9P 113841-67-1P
     113841-68-2P 113841-69-3P 113841-70-6P
     113841-71-7P 113841-72-8P 113841-73-9P
     113841-74-0P 113841-75-1P 113841-76-2P
     113841-77-3P 113841-78-4P 113841-79-5P
     113841-80-8P 113879-76-8P 113879-77-9P
     113879-78-0P 113879-79-1P 113879-80-4P
     113879-81-5P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP
```

(Preparation)

(prepn. and reaction of, in prepn. of hypolipemic)

RN 28241-32-9 HCAPLUS

CN Phosphonium, [(3,5-dimethyl-4-isoxazolyl)methyl]triphenyl-, chloride (8CI, 9CI) (CA INDEX NAME)

• c1-

RN 52605-61-5 HCAPLUS

CN Phosphonium, [(3,5-diphenyl-4-isoxazolyl)methyl]triphenyl-, bromide (9CI) (CA INDEX NAME)

• Br

RN 113826-87-2 HCAPLUS

CN 4-Isoxazolemethanol, 3-methyl-5-phenyl- (9CI) (CA INDEX NAME)

RN 113841-32-0 HCAPLUS

CN 6-Heptenoic acid, 3,5-bis[[(1,1-dimethylethyl)diphenylsilyl]oxy]-7-(3-methyl-5-phenyl-4-isoxazolyl)-, methyl ester, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

RN 113841-33-1 HCAPLUS

CN 6-Heptenoic acid, 3,5-bis[[(1,1-dimethylethyl)diphenylsilyl]oxy]-7-(5-methyl-3-phenyl-4-isoxazolyl)-, methyl ester, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

RN 113841-34-2 HCAPLUS

CN 6-Heptenoic acid, 7-(5-cyclohexyl-3-methyl-4-isoxazolyl)-3,5-bis[[(1,1-dimethylethyl)diphenylsilyl]oxy]-, methyl ester, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

RN 113841-35-3 HCAPLUS

CN 6-Heptenoic acid, 3,5-bis[[(1,1-dimethylethyl)diphenylsilyl]oxy]-7-[3-methyl-5-(1-naphthalenyl)-4-isoxazolyl]-, methyl ester, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

RN 113841-36-4 HCAPLUS

CN 6-Heptenoic acid, 3,5-bis[[(1,1-dimethylethyl)diphenylsilyl]oxy]-7-(3-methyl-5-phenyl-4-isothiazolyl)-, methyl ester, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.

RN 113841-37-5 HCAPLUS

CN 6-Heptenoic acid, 3,5-bis[[(1,1-dimethylethyl)diphenylsilyl]oxy]-7-[5-(2,4-dimethylphenyl)-3-methyl-4-isoxazolyl]-, methyl ester, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

RN 113841-38-6 HCAPLUS

CN 6-Heptenoic acid, 3,5-bis[[(1,1-dimethylethyl)diphenylsilyl]oxy]-7-(3,5-diphenyl-4-isoxazolyl)-, methyl ester, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

RN 113841-39-7 HCAPLUS

CN 6-Heptenoic acid, 7-[5-(2,4-dichlorophenyl)-3-methyl-4-isoxazolyl]-3,5-bis[[(1,1-dimethylethyl)diphenylsilyl]oxy]-, methyl ester, [R*,S*-(E)]-(9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

RN 113841-40-0 HCAPLUS

CN 6-Heptenoic acid, 3,5-bis[[(1,1-dimethylethyl)diphenylsilyl]oxy]-7-[3-methyl-5-(2-naphthalenyl)-4-isoxazolyl]-, methyl ester, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

RN 113841-41-1 HCAPLUS

CN 6-Heptenoic acid, 3,5-bis[[(1,1-dimethylethyl)diphenylsilyl]oxy]-7-(3,5-dimethyl-4-isoxazolyl)-, methyl ester, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

RN 113841-42-2 HCAPLUS

CN 6-Heptenoic acid, 7-(5-[1,1'-biphenyl]-2-yl-3-methyl-4-isoxazolyl)-3,5-bis[[(1,1-dimethylethyl)diphenylsilyl]oxy]-, methyl ester, [R*,S*-(E)]-(9CI) (CA INDEX NAME)

Relative stereochemistry. Double bond geometry as shown.

RN 113841-43-3 HCAPLUS

CN 6-Heptenoic acid, 3,5-bis[[(1,1-dimethylethyl)diphenylsilyl]oxy]-7-(5-ethyl-3-phenyl-4-isoxazolyl)-, methyl ester, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

RN 113841-44-4 HCAPLUS

CN 6-Heptenoic acid, 7-[5-(3-butenyl)-3-phenyl-4-isoxazolyl]-3,5-bis[[(1,1-dimethylethyl)diphenylsilyl]oxy]-, methyl ester, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry. Double bond geometry as shown.

RN 113841-45-5 HCAPLUS

CN 6-Heptenoic acid, 3,5-bis[[(1,1-dimethylethyl)diphenylsilyl]oxy]-7-(5-heptadecyl-3-phenyl-4-isoxazolyl)-, methyl ester, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

RN 113841-46-6 HCAPLUS

CN 6-Heptenoic acid, 3,5-bis[[(1,1-dimethylethyl)diphenylsilyl]oxy]-7-[5-(2-methylpropyl)-3-phenyl-4-isoxazolyl]-, methyl ester, [R*,S*-(E)]- (9CI)

(CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

RN 113841-47-7 HCAPLUS

CN 6-Heptenoic acid, 3,5-bis[[(1,1-dimethylethyl)diphenylsilyl]oxy]-7-[3-methyl-5-(4-methylphenyl)-4-isoxazolyl]-, methyl ester, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.

RN 113841-48-8 HCAPLUS

CN 6-Heptenoic acid, 3,5-bis[[(1,1-dimethylethyl)diphenylsilyl]oxy]-7-[5-(4-methoxyphenyl)-3-methyl-4-isoxazolyl]-, methyl ester, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

RN 113841-49-9 HCAPLUS

CN 6-Heptenoic acid, 7-[5-(4-chlorophenyl)-3-methyl-4-isoxazolyl]-3,5-bis[[(1,1-dimethylethyl)diphenylsilyl]oxy]-, methyl ester, [R*,S*-(E)]-(9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

RN 113841-50-2 HCAPLUS

CN 6-Heptenoic acid, 3,5-bis[[(1,1-dimethylethyl)diphenylsilyl]oxy]-7-[5-(3-fluoro-4-methylphenyl)-3-methyl-4-isoxazolyl]-, methyl ester, [R*,S*-(E)]-(9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

RN 113841-51-3 HCAPLUS

CN 6-Heptenoic acid, 7-[5-(3-bromophenyl)-3-methyl-4-isoxazolyl]-3,5-bis[[(1,1-dimethylethyl)diphenylsilyl]oxy]-, methyl ester, [R*,S*-(E)]-(9CI) (CA INDEX NAME)

RN 113841-52-4 HCAPLUS

CN 6-Heptenoic acid, 3,5-bis[[(1,1-dimethylethyl)diphenylsilyl]oxy]-7-[3-methyl-5-(3,4,5-trimethylphenyl)-4-isoxazolyl]-, methyl ester,
[R*,S*-(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

RN 113841-53-5 HCAPLUS

CN 6-Heptenoic acid, 7-(5-[1,1'-biphenyl]-4-yl-3-methyl-4-isoxazolyl)-3,5-bis[[(1,1-dimethylethyl)diphenylsilyl]oxy]-, methyl ester, [R*,S*-(E)]-(9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

RN 113841-59-1 HCAPLUS

CN Isoxazole, 4-(bromomethyl)-3-methyl-5-phenyl- (9CI) (CA INDEX NAME)

RN 113841-60-4 HCAPLUS

Phosphonium, [(3-methyl-5-phenyl-4-isoxazolyl)methyl]triphenyl-, chloride CN (9CI) (CA INDEX NAME)

● c1-

RN

113841-61-5 HCAPLUS
Phosphonium, [(5-methyl-3-phenyl-4-isoxazolyl)methyl]triphenyl-, bromide CN (9CI) (CA INDEX NAME)

RN113841-62-6 HCAPLUS

Phosphonium, [(5-cyclohexyl-3-methyl-4-isoxazolyl)methyl]triphenyl-, CN bromide (9CI) (CA INDEX NAME)

● Br⁻

RN

113841-63-7 HCAPLUS Phosphonium, [[3-methyl-5-(1-naphthalenyl)-4-isoxazolyl]methyl]triphenyl-, CN bromide (9CI) (CA INDEX NAME)

Br⁻

113841-64-8 HCAPLUS RN

Phosphonium, [(3-methyl-5-phenyl-4-isothiazolyl)methyl]triphenyl-, bromide CN(9CI) (CA INDEX NAME)

● Br⁻

113841-65-9 HCAPLUS RN

Phosphonium, [[5-(2,4-dimethylphenyl)-3-methyl-4-CNisoxazolyl]methyl]triphenyl-, bromide (9CI) (CA INDEX NAME)

● Br⁻

RN 113841-67-1 HCAPLUS

CN Phosphonium, [[5-[4-(1,1-dimethylethyl)phenyl]-3-methyl-4-isoxazolyl]methyl]triphenyl-, bromide (9CI) (CA INDEX NAME)

● Br⁻

RN 113841-68-2 HCAPLUS

CN Phosphonium, [[5-(2,4-dichlorophenyl)-3-methyl-4-isoxazolyl]methyl]triphenyl-, bromide (9CI) (CA INDEX NAME)

● Br⁻

RN

113841-69-3 HCAPLUS
Phosphonium, [[3-methyl-5-(2-naphthalenyl)-4-isoxazolyl]methyl]triphenyl-, CN bromide (9CI) (CA INDEX NAME)

● Br⁻

113841-70-6 HCAPLUS RN CN

Phosphonium, [[5-(2,4-dimethoxyphenyl)-3-methyl-4isoxazolyl]methyl]triphenyl-, bromide (9CI) (CA INDEX NAME)

Br-

RN 113841-71-7 HCAPLUS

CN Phosphonium, [(5-[1,1'-biphenyl]-2-yl-3-methyl-4-isoxazolyl)methyl]triphenyl-, bromide (9CI) (CA INDEX NAME)

● Br-

RN 113841-72-8 HCAPLUS

CN Phosphonium, [(5-ethyl-3-phenyl-4-isoxazolyl)methyl]triphenyl-, bromide (9CI) (CA INDEX NAME)

$$Ph$$
 N
 O
 Ph_3+P-CH_2
Et

• Br-

RN 113841-73-9 HCAPLUS

CN Phosphonium, [[5-(3-butenyl)-3-phenyl-4-isoxazolyl]methyl]triphenyl-, bromide (9CI) (CA INDEX NAME)

Ph N O
$$CH_2-CH_2-CH_2-CH_2$$

• Br-

RN 113841-74-0 HCAPLUS

CN Phosphonium, [[5-(2-methylpropyl)-3-phenyl-4-isoxazolyl]methyl]triphenyl-, bromide (9CI) (CA INDEX NAME)

• Br-

RN 113841-75-1 HCAPLUS

CN Phosphonium, [[3-methyl-5-(4-methylphenyl)-4-isoxazolyl]methyl]triphenyl-, bromide (9CI) (CA'INDEX NAME)

● Br⁻

RN 113841-76-2 HCAPLUS

CN Phosphonium, [[5-(4-methoxyphenyl)-3-methyl-4-isoxazolyl]methyl]triphenyl-, bromide (9CI) (CA INDEX NAME)

• Br-

RN 113841-77-3 HCAPLUS

CN Phosphonium, [[5-(3,4-dimethylphenyl)-3-methyl-4-isoxazolyl]methyl]triphenyl-, bromide (9CI) (CA INDEX NAME)

• Br

RN 113841-78-4 HCAPLUS

CN Phosphonium, [[5-(3-fluoro-4-methylphenyl)-3-methyl-4-isoxazolyl]methyl]triphenyl-, bromide (9CI) (CA INDEX NAME)

• Br

RN 113841-79-5 HCAPLUS

CN Phosphonium, [[3-methyl-5-(3,4,5-trimethylphenyl)-4-isoxazolyl]methyl]triphenyl-, bromide (9CI) (CA INDEX NAME)

• Br

RN 113841-80-8 HCAPLUS

CN Phosphonium, [(5-[1,1'-biphenyl]-4-yl-3-methyl-4-isoxazolyl)methyl]triphenyl-, bromide (9CI) (CA INDEX NAME)

• Br-

RN 113879-76-8 HCAPLUS

CN 6-Heptenoic acid, 3,5-bis[[(1,1-dimethylethyl)diphenylsilyl]oxy]-7-[5-[4-(1,1-dimethylethyl)phenyl]-3-methyl-4-isoxazolyl]-, methyl ester,
[R*,S*-(E)]- (9CI) (CA INDEX NAME)

RN 113879-77-9 HCAPLUS

CN 6-Heptenoic acid, 7-[5-(2,4-dimethoxyphenyl)-3-methyl-4-isoxazolyl]-3,5-bis[[(1,1-dimethylethyl)diphenylsilyl]oxy]-, methyl ester, [R*,S*-(E)]-(9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.

RN 113879-78-0 HCAPLUS

CN 6-Heptenoic acid, 3,5-bis[[(1,1-dimethylethyl)diphenylsilyl]oxy]-7-[5-(3,4-dimethylphenyl)-3-methyl-4-isoxazolyl]-, methyl ester, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry. Double bond geometry as shown.

RN 113879-79-1 HCAPLUS

CN Phosphonium, [(5-heptadecyl-3-phenyl-4-isoxazolyl)methyl]triphenyl-, bromide (9CI) (CA INDEX NAME)

● Br-

RN 113879-80-4 HCAPLUS

CN Phosphonium, [[5-(4-chlorophenyl)-3-methyl-4-isoxazolyl]methyl]triphenyl-, bromide (9CI) (CA INDEX NAME)

• Br-

RN 113879-81-5 HCAPLUS

CN Phosphonium, [[5-(3-bromophenyl)-3-methyl-4-isoxazolyl]methyl]triphenyl-, bromide (9CI) (CA INDEX NAME)

Br

IT 113826-46-3P 113826-47-4P 113826-48-5P 113826-49-6P 113826-50-9P 113826-51-0P 113826-52-1P 113826-53-2P 113826-54-3P

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113826-55-4P 113826-56-5P 113826-57-6P
     113826-58-7P 113826-59-8P 113826-60-1P
     113826-61-2P 113826-62-3P 113826-63-4P
     113826-64-5P 113826-65-6P 113826-66-7P
     113826-67-8P 113826-68-9P 113826-69-0P
     113826-70-3P 113826-71-4P 113826-72-5P
     113826-73-6P 113826-74-7P 113826-75-8P
     113826-76-9P 113826-77-0P 113826-78-1P
     113826-79-2P 113826-80-5P 113826-81-6P
     113826-82-7P 113826-83-8P 113826-84-9P
     113826-85-0P 113826-86-1P 113830-85-6P
     113842-01-6P 113842-02-7P 113842-03-8P
     113842-04-9P 113842-05-0P 113842-06-1P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn. of, as hypolipemic)
RN
     113826-46-3 HCAPLUS
     6-Heptenoic acid, 3,5-dihydroxy-7-(3-methyl-5-phenyl-4-isoxazolyl)-,
CN
    monosodium salt, [R*,S*-(E)]- (9CI) (CA INDEX NAME)
```

Na

RN 113826-47-4 HCAPLUS
CN 2H-Pyran-2-one, tetrahydro-4-hydroxy-6-[2-(3-methyl-5-phenyl-4-isoxazolyl)ethenyl]-, [4.alpha.,6.beta.(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry. Double bond geometry as shown.

RN 113826-48-5 HCAPLUS
CN 6-Heptenoic acid, 7-[5-(2,4-dimethoxyphenyl)-3-methyl-4-isoxazolyl]-3,5-dihydroxy-, monosodium salt, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Na

RN 113826-49-6 HCAPLUS

6-Heptenoic acid, 3,5-dihydroxy-7-(3-methyl-5-phenyl-4-isoxazolyl)-, CN methyl ester, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry. Double bond geometry as shown.

113826-50-9 HCAPLUS RN

2H-Pyran-2-one, tetrahydro-4-hydroxy-6-[2-(5-methyl-3-phenyl-4-CN isoxazolyl)ethenyl]-, [4.alpha.,6.beta.(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry. Double bond geometry as shown.

113826-51-0 HCAPLUS RN

2H-Pyran-2-one, 6-[2-(5-cyclohexyl-3-methyl-4-CN isoxazolyl)ethenyl]tetrahydro-4-hydroxy-, [4.alpha.,6.beta.(E)]- (9CI) (CA INDEX NAME)

RN 113826-52-1 HCAPLUS CN 2H-Pyran-2-one, tetrahydro-4-hydroxy-6-[2-[3-methyl-5-(1-naphthalenyl)-4-isoxazolyl]ethenyl]-, [4.alpha.,6.beta.(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.

RN 113826-53-2 HCAPLUS CN 2H-Pyran-2-one, 6-[2-[5-(2,4-dimethylphenyl)-3-methyl-4isoxazolyl]ethenyl]tetrahydro-4-hydroxy-, [4.alpha.,6.beta.(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.

RN 113826-54-3 HCAPLUS

CN 2H-Pyran-2-one, 6-[2-[5-[4-(1,1-dimethylethyl)phenyl]-3-methyl-4-isoxazolyl]ethenyl]tetrahydro-4-hydroxy-, [4.alpha.,6.beta.(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.

RN 113826-55-4 HCAPLUS

CN 2H-Pyran-2-one, 6-[2-[5-(2,4-dichlorophenyl)-3-methyl-4-isoxazolyl]ethenyl]tetrahydro-4-hydroxy-, [4.alpha.,6.beta.(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.

RN 113826-56-5 HCAPLUS

CN 2H-Pyran-2-one, tetrahydro-4-hydroxy-6-[2-[3-methyl-5-(2-naphthalenyl)-4-isoxazolyl]ethenyl]-, [4.alpha.,6.beta.(E)]- (9CI) (CA INDEX NAME)

RN 113826-57-6 HCAPLUS CN 2H-Pyran-2-one, 6-[2-[5-(2,4-dimethoxyphenyl)-3-methyl-4-

isoxazolyl]ethenyl]tetrahydro-4-hydroxy-, [4.alpha.,6.beta.(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

RN 113826-58-7 HCAPLUS

CN 2H-Pyran-2-one, 6-[2-(3,5-dimethyl-4-isoxazolyl)ethenyl]tetrahydro-4-hydroxy-, [4.alpha.,6.beta.(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.

RN 113826-59-8 HCAPLUS

CN 2H-Pyran-2-one, 6-[2-(5-[1,1'-biphenyl]-2-yl-3-methyl-4-isoxazolyl)ethenyl]tetrahydro-4-hydroxy-, [4.alpha.,6.beta.(E)]- (9CI) (CA INDEX NAME)

RN 113826-60-1 HCAPLUS

CN 2H-Pyran-2-one, 6-[2-(5-ethyl-3-phenyl-4-isoxazolyl)ethenyl]tetrahydro-4-hydroxy-, [4.alpha.,6.beta.(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.

RN 113826-61-2 HCAPLUS

CN 2H-Pyran-2-one, 6-[2-[5-(3-butenyl)-3-phenyl-4-isoxazolyl]ethenyl]tetrahydro-4-hydroxy-, [4.alpha.,6.beta.(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

RN 113826-62-3 HCAPLUS

CN 2H-Pyran-2-one, 6-[2-(5-heptadecyl-3-phenyl-4-

isoxazolyl)ethenyl]tetrahydro-4-hydroxy-, [4.alpha.,6.beta.(E)]- (9CI)
(CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

Me
$$(CH_2)_{16}$$
 $(CH_2)_{16}$ $(CH_2)_{16}$

RN 113826-63-4 HCAPLUS

CN 2H-Pyran-2-one, tetrahydro-4-hydroxy-6-[2-[5-(2-methylpropyl)-3-phenyl-4-isoxazolyl]ethenyl]-, [4.alpha.,6.beta.(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

RN 113826-64-5 HCAPLUS

CN 2H-Pyran-2-one, tetrahydro-4-hydroxy-6-[2-[3-methyl-5-(4-methylphenyl)-4-isoxazolyl]ethenyl]-, [4.alpha.,6.beta.(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.

RN 113826-65-6 HCAPLUS

CN 2H-Pyran-2-one, tetrahydro-4-hydroxy-6-[2-[5-(4-methoxyphenyl)-3-methyl-4-isoxazolyl]ethenyl]-, [4.alpha.,6.beta.(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.

RN 113826-66-7 HCAPLUS

CN 2H-Pyran-2-one, 6-[2-[5-(4-chlorophenyl)-3-methyl-4-isoxazolyl]ethenyl]tetrahydro-4-hydroxy-, [4.alpha.,6.beta.(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.

RN 113826-67-8 HCAPLUS

CN 2H-Pyran-2-one, 6-[2-[5-(3,4-dimethylphenyl)-3-methyl-4-isoxazolyl]ethenyl]tetrahydro-4-hydroxy-, [4.alpha.,6.beta.(E)]- (9CI) (CA INDEX NAME)

RN 113826-68-9 HCAPLUS

CN 2H-Pyran-2-one, 6-[2-[5-(3-fluoro-4-methylphenyl)-3-methyl-4-isoxazolyl]ethenyl]tetrahydro-4-hydroxy-, [4.alpha.,6.beta.(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

RN 113826-69-0 HCAPLUS

CN 2H-Pyran-2-one, tetrahydro-4-hydroxy-6-[2-[3-methyl-5-(3,4,5-trimethylphenyl)-4-isoxazolyl]ethenyl]-, [4.alpha.,6.beta.(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.

RN 113826-70-3 HCAPLUS

CN 2H-Pyran-2-one, 6-[2-(5-[1,1'-biphenyl]-4-yl-3-methyl-4-isoxazolyl)ethenyl]tetrahydro-4-hydroxy-, [4.alpha.,6.beta.(E)]- (9CI) (CA INDEX NAME)

RN 113826-71-4 HCAPLUS

CN 6-Heptenoic acid, 3,5-dihydroxy-7-[3-methyl-5-(1-naphthalenyl)-4-isoxazolyl]-, monosodium salt, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

Na

RN 113826-72-5 HCAPLUS

CN 6-Heptenoic acid, 7-[5-[4-(1,1-dimethylethyl)phenyl]-3-methyl-4-isoxazolyl]-3,5-dihydroxy-, monosodium salt, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

Na

Na

RN 113826-73-6 HCAPLUS

CN 6-Heptenoic acid, 7-[5-(2,4-dichlorophenyl)-3-methyl-4-isoxazolyl]-3,5-dihydroxy-, monosodium salt, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

Na

RN 113826-74-7 HCAPLUS

CN 6-Heptenoic acid, 3,5-dihydroxy-7-[3-methyl-5-(2-naphthalenyl)-4-isoxazolyl]-, monosodium salt, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

Na

RN 113826-75-8 HCAPLUS

CN 6-Heptenoic acid, 7-(3,5-dimethyl-4-isoxazolyl)-3,5-dihydroxy-, monosodium salt, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

Na

RN 113826-76-9 HCAPLUS

CN 6-Heptenoic acid, 7-(5-[1,1'-biphenyl]-2-yl-3-methyl-4-isoxazolyl)-3,5-dihydroxy-, monosodium salt, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

Na

RN 113826-77-0 HCAPLUS

CN 6-Heptenoic acid, 7-[5-(3-butenyl)-3-phenyl-4-isoxazolyl]-3,5-dihydroxy-, monosodium salt, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

Na

RN 113826-78-1 HCAPLUS

CN 6-Heptenoic acid, 7-(5-heptadecyl-3-phenyl-4-isoxazolyl)-3,5-dihydroxy-, monosodium salt, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

Na

RN 113826-79-2 HCAPLUS

CN 6-Heptenoic acid, 3,5-dihydroxy-7-[5-(2-methylpropyl)-3-phenyl-4-isoxazolyl]-, monosodium salt, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.

Na

RN 113826-80-5 HCAPLUS

CN 6-Heptenoic acid, 3,5-dihydroxy-7-[3-methyl-5-(4-methylphenyl)-4-isoxazolyl]-, monosodium salt, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Na

RN 113826-81-6 HCAPLUS

CN 6-Heptenoic acid, 7-[5-(4-chlorophenyl)-3-methyl-4-isoxazolyl]-3,5-dihydroxy-, monosodium salt, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

Na

RN 113826-82-7 HCAPLUS

CN 6-Heptenoic acid, 7-[5-(3,4-dimethylphenyl)-3-methyl-4-isoxazolyl]-3,5-dihydroxy-, monosodium salt, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Na

RN 113826-83-8 HCAPLUS

CN 6-Heptenoic acid, 7-[5-(3-fluoro-4-methylphenyl)-3-methyl-4-isoxazolyl]-3,5-dihydroxy-, monosodium salt, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.

Na

RN 113826-84-9 HCAPLUS

CN 6-Heptenoic acid, 7-[5-(3-bromophenyl)-3-methyl-4-isoxazolyl]-3,5-dihydroxy-, monosodium salt, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Na

RN 113826-85-0 HCAPLUS

CN 6-Heptenoic acid, 3,5-dihydroxy-7-[3-methyl-5-(3,4,5-trimethylphenyl)-4-isoxazolyl]-, monosodium salt, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

Na

RN 113826-86-1 HCAPLUS

CN 6-Heptenoic acid, 7-(5-[1,1'-biphenyl]-4-yl-3-methyl-4-isoxazolyl)-3,5-dihydroxy-, monosodium salt, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

Na

RN 113830-85-6 HCAPLUS

CN 6-Heptenoic acid, 3,5-dihydroxy-7-(3-methyl-5-phenyl-4-isothiazolyl)-, monosodium salt, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

Na

RN 113842-01-6 HCAPLUS

CN 2H-Pyran-2-one, tetrahydro-4-hydroxy-6-[2-(3-methyl-5-phenyl-4-isothiazolyl)ethenyl]-, [4.alpha.,6.beta.(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.

RN 113842-02-7 HCAPLUS

CN 2H-Pyran-2-one, 6-[2-(3,5-diphenyl-4-isoxazolyl)ethenyl]tetrahydro-4-hydroxy-, [4.alpha.,6.beta.(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

RN 113842-03-8 HCAPLUS

CN 2H-Pyran-2-one, 6-[2-[5-(3-bromophenyl)-3-methyl-4-isoxazolyl]ethenyl]tetrahydro-4-hydroxy-, [4.alpha.,6.beta.(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

RN 113842-04-9 HCAPLUS

CN 6-Heptenoic acid, 7-(3,5-diphenyl-4-isoxazolyl)-3,5-dihydroxy-, monosodium salt, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry. Double bond geometry as shown.

Na

RN 113842-05-0 HCAPLUS

CN 6-Heptenoic acid, 7-(5-ethyl-3-phenyl-4-isoxazolyl)-3,5-dihydroxy-, monosodium salt, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

Na

RN 113842-06-1 HCAPLUS

CN 6-Heptenoic acid, 3,5-dihydroxy-7-[5-(4-methoxyphenyl)-3-methyl-4-isoxazolyl]-, monosodium salt, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

Na

IT 1143-82-4 19788-37-5 24477-14-3 92029-29-3 99299-07-7 113841-30-8 113841-31-9 113841-81-9 113841-82-0 113841-83-1 113841-84-2 113841-85-3 113841-86-4 113841-87-5 113841-88-6 113841-89-7 113841-90-0 113841-91-1 113841-92-2 113841-93-3 113841-94-4 113841-95-5 113841-96-6 113841-97-7 113841-98-8 113841-99-9 113842-00-5 RL: RCT (Reactant) (reaction of, in prepn. of hypolipemics) RN1143-82-4 HCAPLUS 4-Isoxazolecarboxylic acid, 5-methyl-3-phenyl-, ethyl ester (7CI, 8CI, 9CI) . (CA INDEX NAME)

RN 19788-37-5 HCAPLUS

CN Isoxazole, 4-(chloromethyl)-3,5-dimethyl- (6CI, 8CI, 9CI) (CA INDEX NAME)

RN 24477-14-3 HCAPLUS

CN 4-Isoxazolecarboxylic acid, 3,5-diphenyl-, ethyl ester (6CI, 8CI, 9CI) (CA INDEX NAME)

RN 92029-29-3 HCAPLUS

CN 4-Isoxazolecarboxylic acid, 3-methyl-5-phenyl-, ethyl ester (7CI, 9CI) (CA INDEX NAME)

RN 99299-07-7 HCAPLUS

CN 4-Isoxazolemethanol, 5-ethyl-3-phenyl- (9CI) (CA INDEX NAME)

RN 113841-30-8 HCAPLUS
CN 4-Isoxazolemethanol, 5-[1,1'-biphenyl]-4-yl-3-methyl- (9CI) (CA INDEX NAME)

RN 113841-31-9 HCAPLUS

CN Heptanoic acid, 3,6-bis[[(1,1-dimethylethyl)diphenylsilyl]oxy]-7-oxo-, methyl ester, (R*,S*)- (9CI) (CA_INDEX_NAME)

Relative stereochemistry.

RN 113841-81-9 HCAPLUS

CN Phosphonium, [(3-methyl-5-phenyl-4-isoxazolyl)methyl]triphenyl-, bromide (9CI) (CA INDEX NAME)

● Br-

113841-82-0 HCAPLUS

4-Isoxazolecarboxylic acid, 5-cyclohexyl-3-methyl-, ethyl ester (9CI) (CA INDEX NAME)

113841-83-1 HCAPLUS RN

4-Isoxazolecarboxylic acid, 3-methyl-5-(1-naphthalenyl)-, ethyl ester CN (9CI) (CA INDEX NAME)

113841-84-2 HCAPLUS RN

4-Isothiazolecarboxylic acid, 3-methyl-5-phenyl-, ethyl ester (9CI) (CA CN INDEX NAME)

RN 113841-85-3 HCAPLUS

CN 4-Isoxazolecarboxylic acid, 5-(2,4-dimethylphenyl)-3-methyl-, ethyl ester (9CI) (CA INDEX NAME)

RN 113841-86-4 HCAPLUS

CN 4-Isoxazolecarboxylic acid, 5-[4-(1,1-dimethylethyl)phenyl]-3-methyl-, ethyl ester (9CI) (CA INDEX NAME)

RN 113841-87-5 HCAPLUS

CN 4-Isoxazolecarboxylic acid, 5-(2,4-dichlorophenyl)-3-methyl-, ethyl ester (9CI) (CA INDEX NAME)

RN 113841-88-6 HCAPLUS

CN 4-Isoxazolecarboxylic acid, 3-methyl-5-(2-naphthalenyl)-, ethyl ester (9CI) (CA INDEX NAME)

RN 113841-89-7 HCAPLUS

CN 4-Isoxazolecarboxylic acid, 5-(2,4-dimethoxyphenyl)-3-methyl-, ethyl ester (9CI) (CA INDEX NAME)

RN 113841-90-0 HCAPLUS

CN 4-Isoxazolecarboxylic acid, 5-[1,1'-biphenyl]-2-yl-3-methyl-, ethyl ester (9CI) (CA INDEX NAME)

RN 113841-91-1 HCAPLUS

CN 4-Isoxazolemethanol, 5-(3-butenyl)-3-phenyl- (9CI) (CA INDEX NAME)

Ph
$$O$$
HO-CH2 $CH_2-CH_2-CH=CH_2$

RN 113841-92-2 HCAPLUS

CN 4-Isoxazolemethanol, 5-heptadecyl-3-phenyl- (9CI) (CA INDEX NAME)

RN 113841-93-3 HCAPLUS

CN 4-Isoxazolemethanol, 5-(2-methylpropyl)-3-phenyl- (9CI) (CA INDEX NAME)

RN 113841-94-4 HCAPLUS

CN 4-Isoxazolemethanol, 3-methyl-5-(4-methylphenyl)- (9CI) (CA INDEX NAME)

RN 113841-95-5 HCAPLUS

CN 4-Isoxazolemethanol, 5-(4-methoxyphenyl)-3-methyl- (9CI) (CA INDEX NAME)

RN 113841-96-6 HCAPLUS

CN 4-Isoxazolemethanol, 5-(4-chlorophenyl)-3-methyl- (9CI) (CA INDEX NAME)

RN 113841-97-7 HCAPLUS

CN 4-Isoxazolemethanol, 5-(3,4-dimethylphenyl)-3-methyl- (9CI) (CA INDEX NAME)

RN 113841-98-8 HCAPLUS

CN 4-Isoxazolemethanol, 5-(3-fluoro-4-methylphenyl)-3-methyl- (9CI) (CA INDEX NAME)

RN 113841-99-9 HCAPLUS

CN 4-Isoxazolemethanol, 5-(3-bromophenyl)-3-methyl- (9CI) (CA INDEX NAME)

RN 113842-00-5 HCAPLUS

CN 4-Isoxazolemethanol, 3-methyl-5-(3,4,5-trimethylphenyl)- (9CI) (CA INDEX NAME)

L18 ANSWER 7 OF 11 HCAPLUS COPYRIGHT 2001 ACS

AN 1988:108556 HCAPLUS

DN 108:108556

TI .beta.-Glucosidases from cellulolytic fungi Aspergillus terreus, Geotrichum candidum and Trichoderma longibrachiatum as typical glycosidases

AU Rodionova, N. A.; Tavobilov, I. M.; Martinovich, L. I.; Buachidze, T. Sh.; Kvesitadze, G. I.; Bezborodov, A. M.

CS A. N. Bakh Inst. Biochem., Moscow, 117071, USSR

SO Biotechnol. Appl. Biochem. (1987), 9(3), 239-50 CODEN: BABIEC; ISSN: 0885-4513

DT Journal

LA English

By EtOH pptn. and chromatog. on Sephadex SP, DEAE (or DEAE-AΒ cellulose), and G-200, .beta.-glucosidases (EC 3.2.1.21) were isolated from the culture filtrates of the cellulolytic fungi A. terreus, G. candidum, and T. longibrachiatum grown on medium with cellulose -contg. materials. The enzymes were purified to homogeneity. The substrate specificities of the enzymes were studied. The .beta.-glucosidases had higher affinity for p-nitrophenyl-.beta.-Dglucopyranoside than for cellobiose (Km values of 1.25, 0.34, 0.20, and 5.4, 2.0, 1.2 mM, resp., for the A. terreus, G. candidum, and T. longibrachiatum enzymes) and were able to hydrolyze both laminaribiose and gentiobiose, but were unable to cleave cotton fiber, carboxymethylcellulose, and other glycans to reducing sugars. The enzymes also showed transglycosylase activity. Ki Values for the arylqlucosidase activity of .beta.-glucosidases from A. terreus, G. canidum, and T. longibrachiatum in the presence of glucose or glucono-1,5lactone were 12.2, 6.0, 2.1 and 0.20, 0.19, 0.07 mM, resp. The mol. wts. of the enzymes of the 3 species were estd. by gel filtration and by sedimentation equil. centrifugation to be 200,000, 200,000, and 350,000, resp. The pI values of the .beta.-glucosidases were 4.8, 5.9, and 4.2, resp. The optimum temps. and pH values were 60, 50, and 50.degree. and 4.5, 4.5, and 4.8-5.7, resp. These properties appear to relate the .beta.-glucosidases obtained in the present study to typical glycosidases.

IT 9001-22-3P, .beta.-Glucosidase

RL: PREP (Preparation)

(of cellulolytic fungi, purifn. and properties of)

RN 9001-22-3 HCAPLUS

CN Glucosidase, .beta. - (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 528-50-7, Cellobiose 2492-87-7, p-Nitrophenyl-.beta.-D-glucopyranoside

RL: RCT (Reactant)

(reaction of, with .beta.-glucosidase of cellulolytic fungi, kinetics of)

RN 528-50-7 HCAPLUS

CN D-Glucose, 4-O-.beta.-D-glucopyranosyl- (6CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 2492-87-7 HCAPLUS

CN .beta.-D-Glucopyranoside, 4-nitrophenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 50-99-7, Glucose, biological studies 90-80-2,

Glucono-1,5-lactone

RL: BIOL (Biological study)

(.beta.-glucosidase of cellulolytic fungi inhibition by, kinetics of)

RN 50-99-7 HCAPLUS

CN D-Glucose (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 90-80-2 HCAPLUS

CN D-Gluconic acid, .delta.-lactone (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L18 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2001 ACS

AN 1986:197096 HCAPLUS

DN 104:197096

TI Solvent for the dye of a pressure-sensitive recording paper

IN Kawakami, Shigenobu; Matsuzaka, Eiichi; Narui, Satoshi; Takahashi, Naoya

PA Nippon Petrochemicals Co., Ltd., Japan

SO Eur. Pat. Appl., 19 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

L'AIN .	CIAI	1				
	PA'	TENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	ΕP	166454	A2	19860102	EP 1985-108050	19850628
	ΕP	166454	A 3	19870107		
	ΕP	166454	B1	19890517		
		R: BE, DE,	FR, GB	, IT		
	JP	61012389	A2	19860120	JP 1984-135540	19840629
	JΡ	04027957	B4	19920513		
	US	4661165	Α	19870428	US 1985-745909	19850618
	CA	1241668	A1	19880906	CA 1985-484440	19850619
	ES	544691	A1	19860901	ES 1985-544691	19850628
PRAI	JP	1984-135540		19840629		

AB A solvent comprising a fraction having a b.p. of 270-350.degree. which is prepd. by distg. the heavier products obtained from the process for producing ethyltoluene by alkylating PhMe with ethylene in the presence of a synthetic zeolite catalyst is used in the making of a colorless dye

precursor soln. during its microencapsulation for the prepn. of pressure-sensitive recording paper. Thus, PhMe was alkylated with ethylene at 450.degree. in the presence of the synthetic zeolite ZSM-5 [H+-type, SiO2/Al2O3 (mol. ratio) = 60]. The heavier products were distd. under reduced pressure to obtain a fraction having a b.p. of 275-320.degree. and mainly comprising diarylalkanes. Crystal violet lactone 5 g was dissolved in the fraction 100 g, gelatin added, microencapsulated with carboxymethylcellulose and glutaraldehyde, coated on a paper support to give a pressure-sensitive recording paper which was used with an activated clay-coated developing paper to give blue images with improved d. as compared to a control using a solvent prepd. from ethylene and C6H6.

IT **74-85-1**, reactions

RL: RCT (Reactant)

(alkylation of toluene by, diarylalkane solvents from, for leuco dyes for pressure-sensitive copying paper)

RN 74-85-1 HCAPLUS

CN Ethene (9CI) (CA INDEX NAME)

 $H_2C = CH_2$

IT **108-88-3**, reactions

RL: RCT (Reactant)

(alkylation of, by ethylene, biarylalkane solvents from, for leuco dyes for pressure-sensitive copying paper)

RN 108-88-3 HCAPLUS

CN Benzene, methyl- (9CI) (CA INDEX NAME)

IT 1552-42-7

RL: USES (Uses)

(microencapsulated color-forming soln. contg., in diarylalkanes for pressure-sensitive copying papers)

RN 1552-42-7 HCAPLUS

CN 1(3H)-Isobenzofuranone, 6-(dimethylamino)-3,3-bis[4-(dimethylamino)phenyl](9CI) (CA INDEX NAME)

L18 ANSWER 9 OF 11 HCAPLUS COPYRIGHT 2001 ACS

AN 1978:510181 HCAPLUS

DN 89:110181

TI Chemical synthesis of branched polysaccharides, 6. Binding of mono-, diand oligosaccharides to various carriers via amide linkage

AU Emmerling, Winfried N.; Pfannemueller, Beate

CS Inst. Makromol. Chem., Univ. Freiburg, Freiburg/Br., Ger.

SO Makromol. Chem. (1978), 179(6), 1627-33 CODEN: MACEAK; ISSN: 0025-116X

DT Journal

LA English

Carriers having either carboxylic or amino groups including polyfunctional low mol. wt. substances, synthetic polymers, and biopolymers were condensed with sugars with either amino or carboxylic end groups to give carbohydrates with amide linkages. Among the carriers used were adipic acid, carboxymethylamylose, poly(acrylic acid), NH2(CH2)nNH2 (n = 2,6,8,10), and poly(L-lysine); the acid carriers were used, in the condensation reaction, as p-nitrophenyl esters. The amino or carboxy sugars used in the condensation were derived from glucose, maltose, or maltooligosaccharides. Thus, an aldonic acid lactone, derived from a glucopyranose, was condensed with NH2(CH2)2NH2 to give N-(2-aminoethyl)amide of aldonic acid, which was treated with p-nitrophenyl adipate to give a coupled product (C22H42N4O14).

IT 32564-25-3P 67391-52-0P 67400-19-5P

67400-20-8P 67426-85-1P 67426-86-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation)

(prepn. and reaction of, with 2-aminoethylamide of adipic acid)

RN 32564-25-3 HCAPLUS

CN Hexanedioic acid, bis(4-nitrophenyl) ester (9CI) (CA INDEX NAME)

RN 67391-52-0 HCAPLUS

CN 2-Propenoic acid, 4-nitrophenyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 2123-85-5 CMF C9 H7 N O4

$$\begin{array}{c|c}
 & \circ \\
 & \circ \\$$

RN 67400-19-5 HCAPLUS CN 1,3,5-Benzenetriacetic acid, tris(4-nitrophenyl) ester (9CI) (CA INDEX NAME)

RN 67400-20-8 HCAPLUS
CN Glycine, N,N'-1,2-ethanediylbis[N-[2-(4-nitrophenoxy)-2-oxoethyl]-,
bis(4-nitrophenyl) ester (9CI) (CA INDEX NAME)

67426-85-1 HCAPLUS RN

Amylose, 2-(4-nitrophenoxy)-2-oxoethyl ether (9CI) (CA INDEX NAME) CN

CM

CRN 15396-81-3 CMF C8 H7 N O5

CM

9005-82-7 CRN

Unspecified CMF

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN

67426-86-2 HCAPLUS Cellulose, 2-(4-nitrophenoxy)-2-oxoethyl ether (9CI) (CA INDEX NAME) CN

CM 1

CRN 15396-81-3 CMF C8 H7 N O5

CM 2

CRN 9004-34-6 CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 124-09-4 HCAPLUS

CN 1,6-Hexanediamine (7CI, 8CI, 9CI) (CA INDEX NAME)

 $H_2N-(CH_2)_6-NH_2$

RN 373-44-4 HCAPLUS

CN 1,8-Octanediamine (6CI, 8CI, 9CI) (CA INDEX NAME)

 $H_2N-(CH_2)_8-NH_2$

RN 646-25-3 HCAPLUS

CN 1,10-Decanediamine (6CI, 8CI, 9CI) (CA INDEX NAME)

 $H_2N-(CH_2)_{10}-NH_2$

RN 25104-18-1 HCAPLUS

CN L-Lysine, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 56-87-1

CMF C6 H14 N2 O2

CDES 5:L

Absolute stereochemistry.

RN 107-15-3 HCAPLUS

CN 1,2-Ethanediamine (9CI) (CA INDEX NAME)

H2N-CH2-CH2-NH2

L18 ANSWER 10 OF 11 HCAPLUS COPYRIGHT 2001 ACS

AN 1975:579446 HCAPLUS

DN 83:179446

TI Synthesis of 6-0-dimethylglycyl-D-glucono-1,4-lactone (pangamolactone) and its salts

AU Murase, Kiyoshi; Murakami, Masuo

CS Kawanouchi Cent. Res. Lab., Tokyo, Japan

SO Yamanouchi Seiyaku Kenkyu Hokoku (1974), 2, 62-5 CODEN: YSKHDO

DT Journal

LA Japanese

AB D-glucono-1,4-lactone 3,5-phenylborate (I, R = H), prepd. by heating D-glucono-1,4-lactone with triphenylboroxal in methylcellosolve, was condensed with Me2NCH2CO2H-HCl to give I R = COCH2NMe2.cntdot.HCl, which was treated with (HOCH2)2CH2 to give pangamolactone (II). II cellulose acetate phthalate and II carboxymethylcellulose were also prepd.

IT 16820-88-5P 29031-21-8P 29031-22-9P 57074-71-2P 57074-72-3P 57328-12-8P 57372-71-1P

RN 16820-88-5 HCAPLUS

CN D-Gluconic acid, .gamma.-lactone, 6-ester with N,N-dimethylglycine, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

HCl

RN 29031-21-8 HCAPLUS

CN D-Gluconic acid, .gamma.-lactone, cyclic 3,5-(phenylboronate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 29031-22-9 HCAPLUS

CN D-Gluconic acid, .gamma.-lactone, cyclic 3,5-(phenylboronate), 6-ester with N,N-dimethylglycine, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

● HCl

RN 57074-71-2 HCAPLUS

CN D-Gluconic acid, .gamma.-lactone, cyclic 3,5-(phenylboronate) 2,6-dibenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 57074-72-3 HCAPLUS

CN D-Gluconic acid, .gamma.-lactone, 2,6-dibenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 57328-12-8 HCAPLUS

CN D-Gluconic acid, .gamma.-lactone, 6-ester with N,N-dimethylglycine, compd. with cellulose carboxymethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 34044-40-1 CMF C10 H17 N O7 CDES 5:D-GLUCO

Absolute stereochemistry.

CM 2

CRN 9000-11-7

CMF C2 H4 O3 . x Unspecified

CDES 8:GD, ETHER

CM 3

CRN 9004-34-6

CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 4

CRN 79-14-1

CMF C2 H4 O3

57372-71-1 HCAPLUS RN

D-Gluconic acid, .gamma.-lactone, 6-ester with N,N-dimethylglycine, compd. CN with cellulose acetate hydrogen 1,2-benzenedicarboxylate (9CI) (CA INDEX NAME)

1 CM

CRN 34044-40-1 CMF C10 H17 N O7 CDES 5:D-GLUCO

Absolute stereochemistry.

2 CM

CRN 9004-38-0

CMF C8 H6 O4 . \times C2 H4 O2 . \times Unspecified

CDES 8:GD1

CM 3

9004-34-6 CRN CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 4

CRN 88-99-3 C8 H6 O4 CMF

5 CM

CRN 64-19-7 CMF C2 H4 O2

```
0
HO-C-CH3
ΙT
     504-63-2
     RL: RCT (Reactant)
        (reaction with (dimethylglycyl)gluconolactone phenylboronate)
     504-63-2 HCAPLUS
RN
     1,3-Propanediol (8CI, 9CI) (CA INDEX NAME)
CN
HO-CH_2-CH_2-CH_2-OH
IT
     2938-75-2
     RL: RCT (Reactant)
        (reaction with gluconolactone)
     2938-75-2 HCAPLUS
     Boronic acid, phenyl-, diphenyl ester (9CI) (CA INDEX NAME)
    Ph
Pho-B-OPh
ΙT
     2491-06-7
     RL: RCT (Reactant)
        (reaction with gluconolactone phenylboronate)
     2491-06-7 HCAPLUS
RN
     Glycine, N,N-dimethyl-, hydrochloride (6CI, 8CI, 9CI) (CA INDEX NAME)
Me<sub>2</sub>N-CH<sub>2</sub>-CO<sub>2</sub>H
    HCl
IT
     9004-32-4 57285-68-4
     RL: RCT (Reactant)
        (reaction with pangamolactone)
     9004-32-4 HCAPLUS
     Cellulose, carboxymethyl ether, sodium salt (8CI, 9CI) (CA INDEX NAME)
     CM
          1
     CRN 9004-34-6
     CMF Unspecified
     CCI PMS, MAN
```

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1 CMF C2 H4 O3

RN 57285-68-4 HCAPLUS

CN Cellulose, acetate hydrogen 1,2-benzenedicarboxylate, lithium salt (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6

CMF Unspecified

CCI PMS; MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 88-99-3

CMF C8 H6 O4

CM 3

CRN 64-19-7 CMF C2 H4 O2

IT 1198-69-2

RL: RCT (Reactant)

(reaction with triphenylboroxal)

RN 1198-69-2 HCAPLUS

CN D-Gluconic acid, .gamma.-lactone (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L18 ANSWER 11 OF 11 HCAPLUS COPYRIGHT 2001 ACS

AN 1975:163069 HCAPLUS

DN 82:163069

TI Microcapsule dispersion for copying papers

IN Iwasaki, Hiroshi; Nishimoto, Yoshiyuki; Tada, Tomonori; Takekawa, Yasuo

PA Kanzaki Paper Mfg. Co., Ltd.

SO Ger. Offen., 18 pp. CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	J				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2423830	A1	19741212	DE 1974-2423830	19740516
	DE 2423830	C3	19791115		
	DE 2423830	B2	19790329	•	
	JP 50005280	A2	19750120	JP 1973-55773	19730518
	ZA 7403090	Α	19750528	ZA 1974-3090	19740514
	AU 7468952	A 1	19751120	AU 1974-68952	19740515
PRAI	JP 1973-55773		19730518		

In the encapsulation of hydrophobic leuco dye solns. for self-contained or AΒ transfer copy-type papers capsules of superior resistivity to humidity, which can be hardened by aldehydes without adjustment of pH, can be obtained by use of hydrolyzed styrene-maleic anhydride co- or terpolymers in form of their NH4 salts. Per 100 parts hydrophilic colloids, such as ` gelatin or carboxymethyl cellulose, 10-200 parts of hydrolyzate is used with 5-500% of its wt. of a C1-3 mono- or C2-10 dialdehyde. Thus, a soln. of crystal violet lactone 2 and N-benzoylleucomethylene blue 1 g in isopropylbiphenyl 100 g of 60.degree. was dispersed to 4-5.mu. droplets in a soln. of acid-processed gelatin 30 g in water 470 g of 60.degree.. Next 10% aq. gum arabic 300 g and water 200 g, both of 60.degree., were added, a coacervate film formed by addn. of HOAc to pH 4.3 and the film gelled at 10.degree.. After addn. of pentanedial 10 g and 20% aq. hydrolysate 100 g the dispersion of pH 5.2 was coated on paper at 5 g/m2. After 20 hr at 50.degree. and 90% relative humidity the paper appeared unchanged and yielded clear copies.

IT 50-00-0, uses and miscellaneous 111-30-8

RL: USES (Uses)

(in microcapsule dispersion prepn. for copying papers of improve resistance to humidity)

RN 50-00-0 HCAPLUS

CN Formaldehyde (8CI, 9CI) (CA INDEX NAME)

 $H_2C = 0$

RN 111-30-8 HCAPLUS

CN Pentanedial (9CI) (CA INDEX NAME)

 $OHC-(CH_2)_3-CHO$

IT 1249-97-4 1552-42-7

RL: USES (Uses)

(microincapsulation of, hydrolyzed styrene-maleic anhydride polymer ammonium salts in, for copying papers of improved moisture resistance)

RN 1249-97-4 HCAPLUS

CN 10H-Phenothiazine-3,7-diamine, 10-benzoyl-N,N,N',N'-tetramethyl- (9CI) (CA INDEX NAME)

RN 1552-42-7 HCAPLUS

CN 1(3H)-Isobenzofuranone, 6-(dimethylamino)-3,3-bis[4-(dimethylamino)phenyl]-(9CI) (CA INDEX NAME)